

ABSTRACT OF THE DISCLOSURE

A magnetic recording apparatus of a large capacity capable of super-high density recording of 10 Gbits or more per one square inch has a magnetic recording medium prepared by forming a Co alloy magnetic layer by way of an underlayer comprising Co or Cr alloy on a substrate, in which an amorphous or micro crystal seed layer containing at least Ti and Al is disposed between the substrate and the underlayer, the magnetic layer has an h.c.p. structure and is grown to (1.1.0) direction parallel with the substrate, the magnetic recording medium of high coercivity and reduced noises and undergoing less effects of thermal fluctuation being provided because of in-plane orientation of the axis of easy magnetization of the magnetic layer and the reduced size of the magnetic crystal grains and dispersion thereof, combination of the magnetic recording medium and the magnetic head having a read only device utilizing the magnetoresistive effect capable of providing a magnetic recording apparatus having a recording density at 10 Gbits or more per one square inch.

09862452 052301